

WE CLAIM:

1 1. A method of treating an iron overload disease
2 comprising administering to a patient an HFE polypeptide
3 having the sequence of SEQ ID NO:1 wherein the HFE polypeptide
4 is provided in a complex with full length, wild type human
5 β_2m .

1 2. A composition comprising an HFE polypeptide
2 having the amino acid sequence of SEQ ID NO:1 wherein the HFE
3 polypeptide is provided in a complex with full length, wild
4 type human β_2m .

1 3. A method of treating an iron deficiency disease
2 comprising administering to a patient an HFE polypeptide
3 having the sequence of SEQ ID NO:2 wherein the HFE polypeptide
4 is provided in a complex with full length, wild type human
5 β_2m .

1 4. A composition comprising an HFE polypeptide
2 having the amino acid sequence of SEQ ID NO:2 wherein the HFE
3 polypeptide is provided in a complex with full length, wild
4 type human β_2m .

1 5. A method of treating an iron deficiency disease
2 comprising administering to a patient an HFE polypeptide
3 having the sequence of SEQ ID NO:3 wherein the HFE polypeptide
4 is provided in a complex with full length, wild type human
5 β_2m .

1 6. A composition comprising an HFE polypeptide
2 having the amino acid sequence of SEQ ID NO:3 wherein the HFE
3 polypeptide is provided in a complex with full length, wild
4 type human β_2m .